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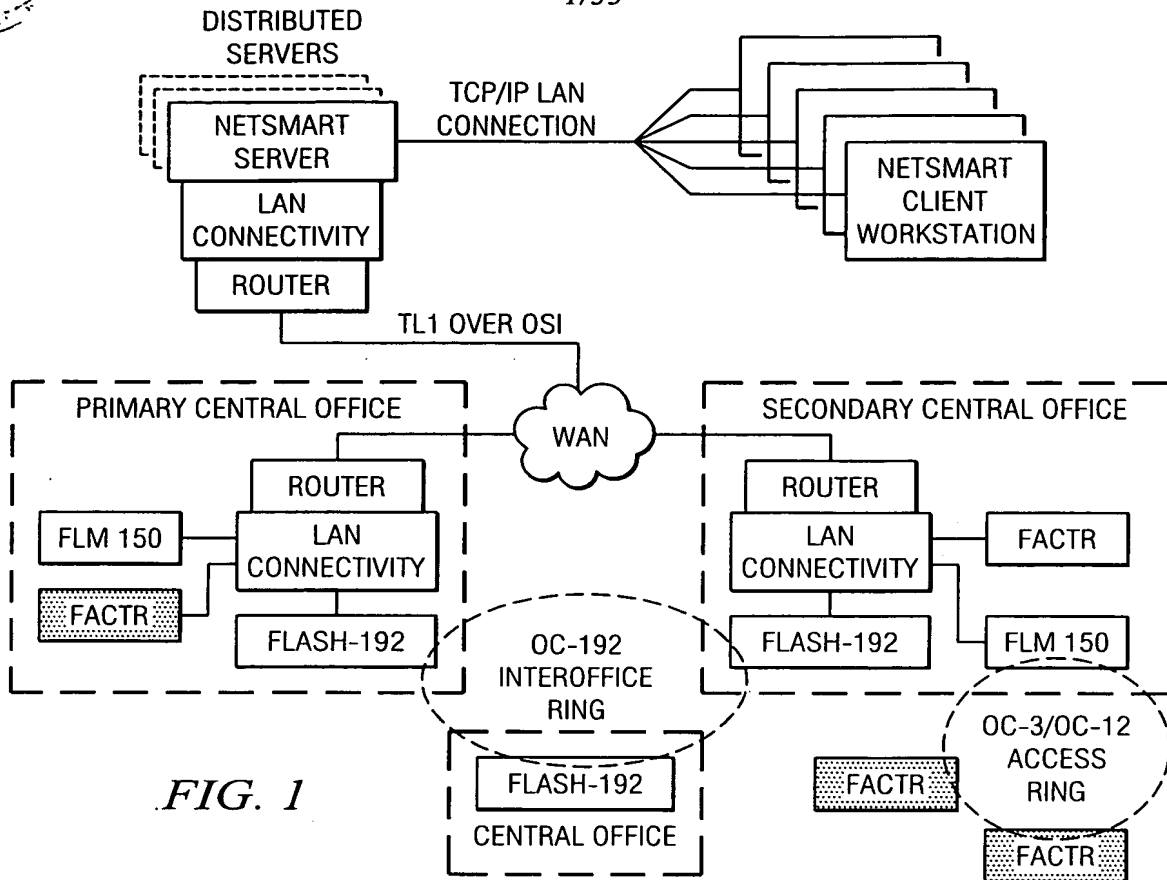


FIG. 1

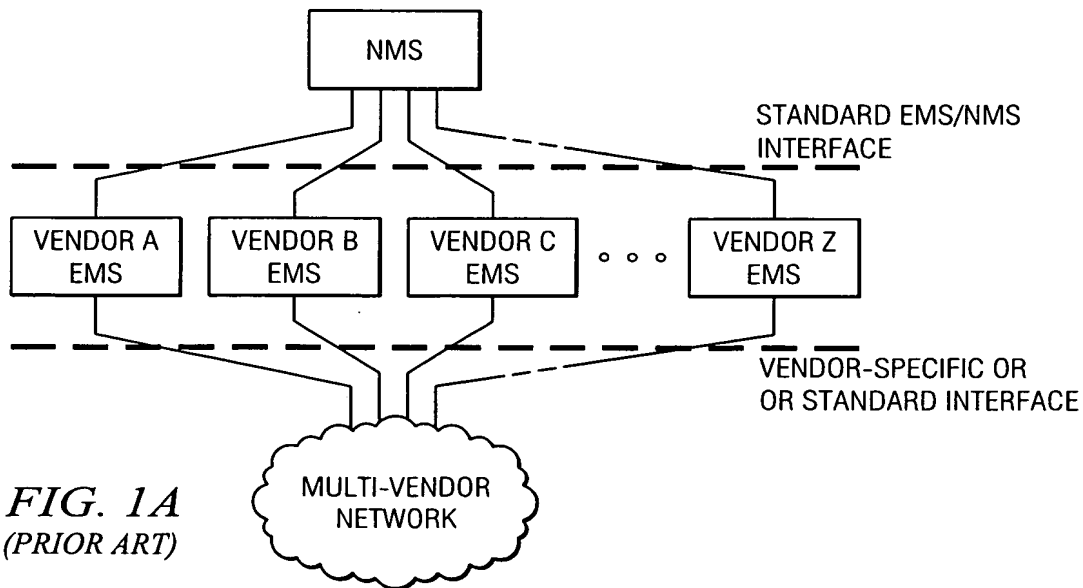


FIG. 1A
(PRIOR ART)

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FIG. 1B
(PRIOR ART)

BML- MANAGE THE OVERALL BUSINESS, e.g., ACHIEVING RETURN ON INVESTMENT, MARKET SHARE, EMPLOYEE SATISFACTION, COMMUNITY AND GOVERNMENT GOALS.

SML- MANAGE THE SERVICES OFFERED TO CUSTOMERS, e.g., MEETING CUSTOMER SERVICE LEVELS, SERVICE QUALITY, COST AND TIME-TO-MARKET OBJECTIVES.

NML- MANAGE THE NETWORK AND SYSTEMS THAT DELIVER THOSE SERVICES, e.g., CAPACITY, DIVERSITY, AND CONGESTION.

EML- MANAGE THE ELEMENTS COMPRISING THE NETWORKS AND SYSTEMS

NEL- SWITCHES, TRANSMISSION, DISTRIBUTION SYSTEMS, ETC...

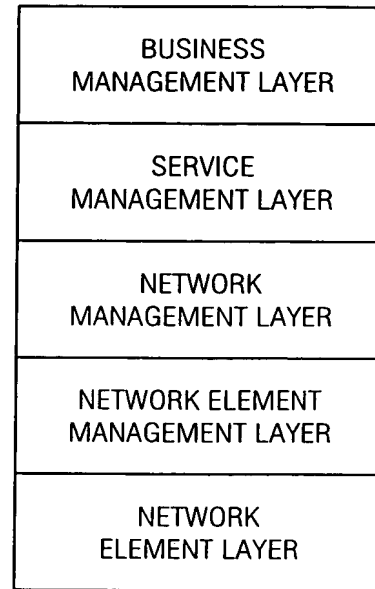


FIG. 2

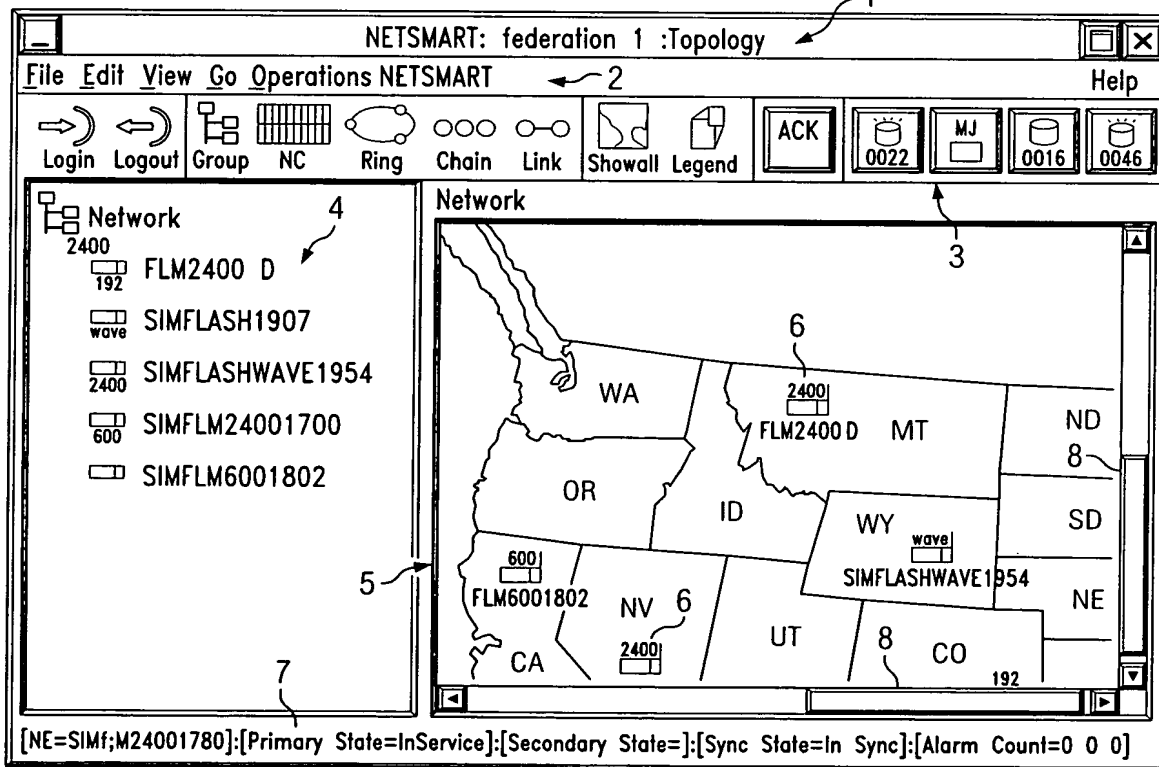


FIG. 3

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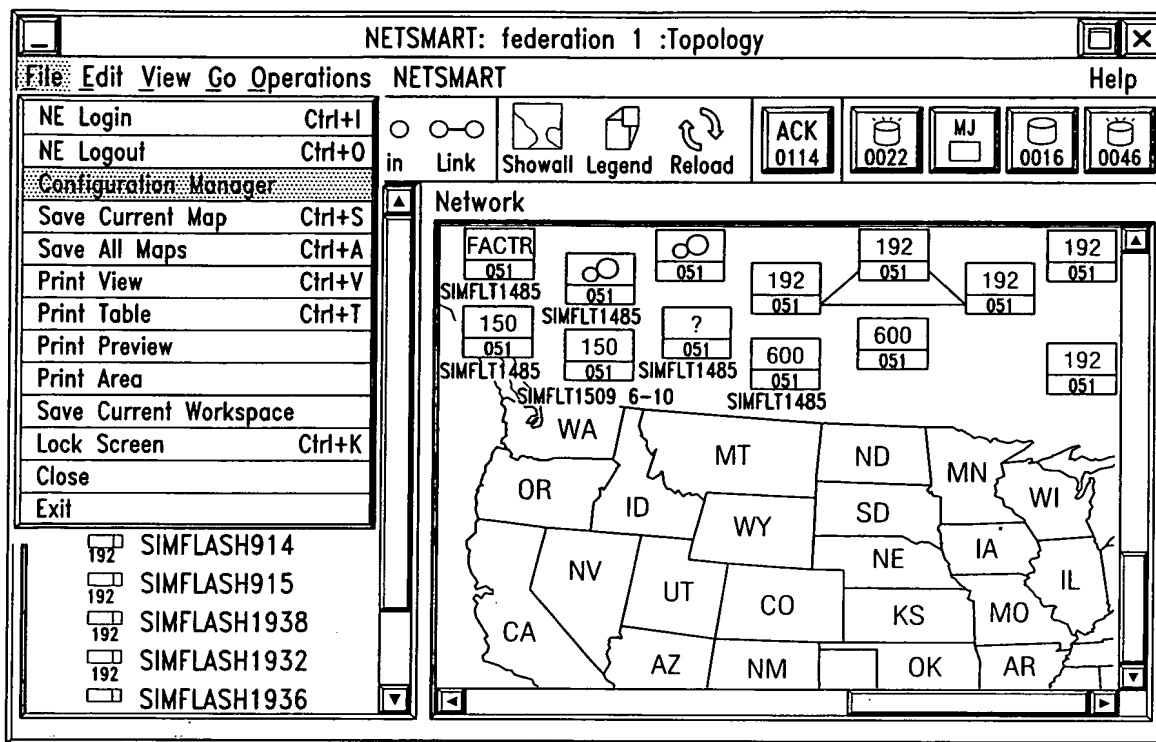


FIG. 4

Filter			
FT018	Test	Value	Logic
(none) <input type="checkbox"/>	(none) <input type="checkbox"/>	Text/Data Entry Field	AND <input type="checkbox"/>
(none) <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
Wavelength (nm) <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
Frequency (THz) <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
Transponder or 10G Part 8 A10 <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
Status <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
OCN WTR (nm) <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
OCN OPR (dBm) <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
WCH OPR (dBm) <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
WOR OPT (dBm) <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
WOR SPT (dBm) <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
(none) <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>
(none) <input type="checkbox"/>	(none) <input type="checkbox"/>		AND <input type="checkbox"/>

FIG. 5

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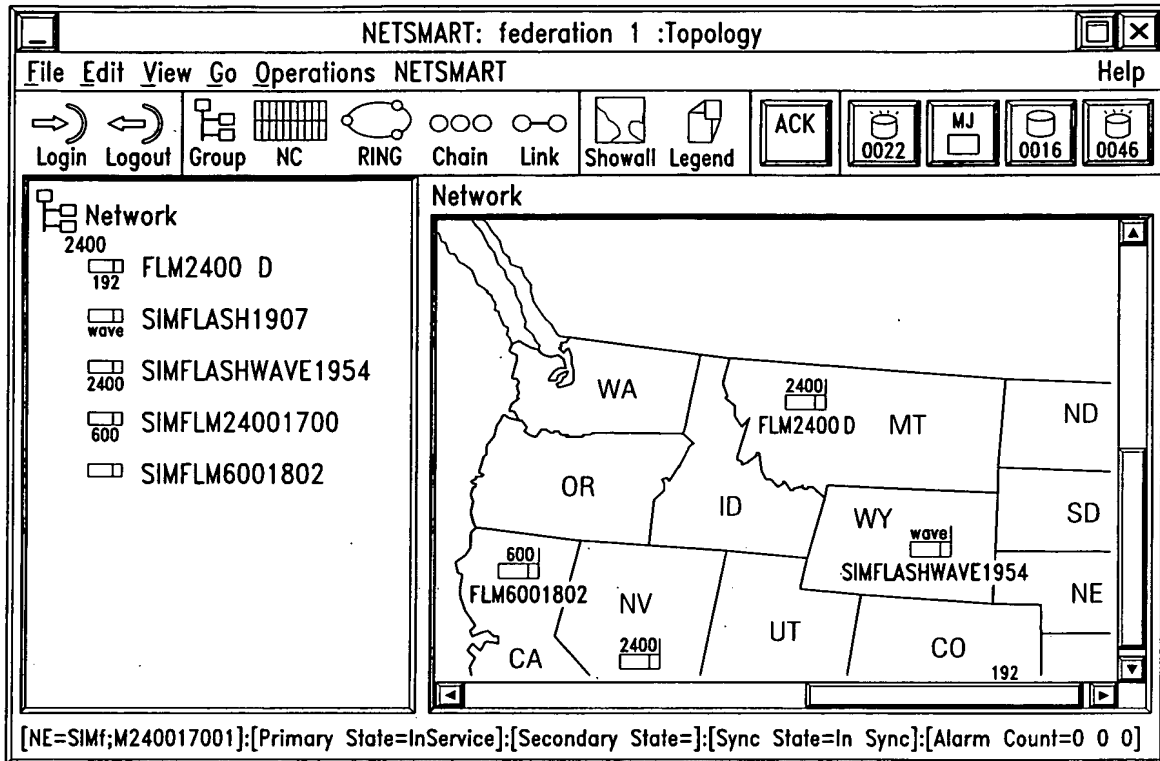


FIG. 6

The screenshot shows the Search NE dialog box. The title bar is 'Search NE'. The main area contains a 'Search NE' text box, a 'Search' button, a 'Case sensitive' checkbox, and a 'Starts with' dropdown menu. Below this is a list box titled 'NE List' containing the following items: FLM150-OSI1, FLM150-OSI3, and FLM600-OSI1. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

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FIG. 7

Add Link

Group 1 :

NE 1 :

Group 2 :

NE 2 :

Linkable Termination Ports

SIM FLASHWAVE 1951

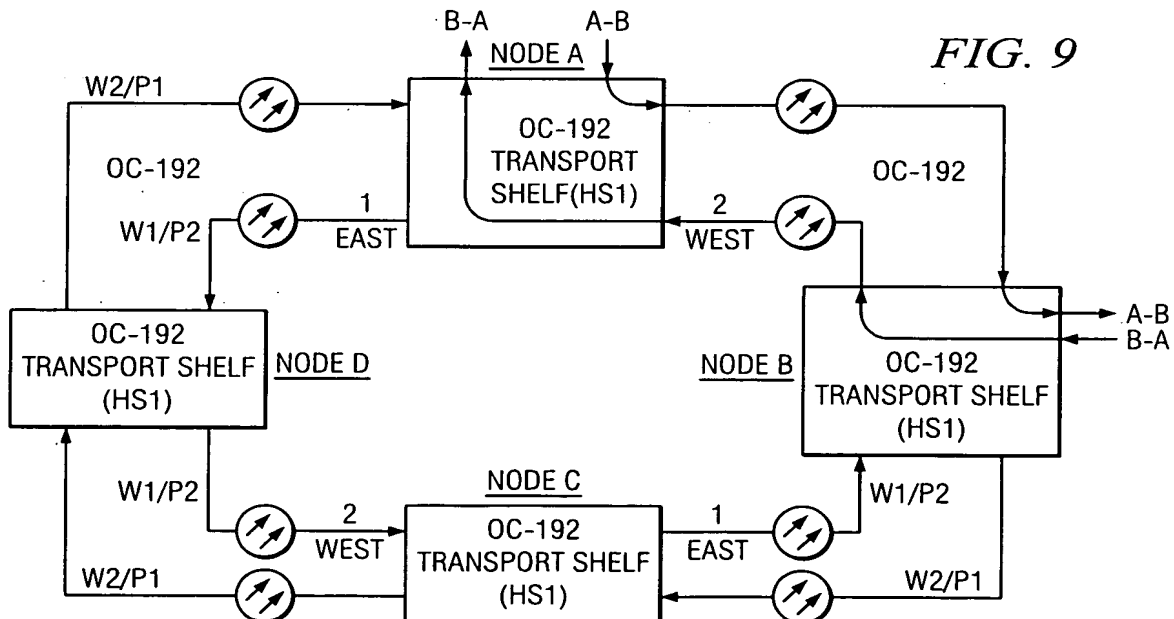
!

OCN	OS1-OCN-1	<input type="button" value="Rx"/>
OCN	OS1-OCN-11	<input type="button" value="Tx"/> <input type="button" value="Rx"/>
OCN	OS1-OCN-14	<input type="button" value="Tx"/> <input type="button" value="Rx"/>
OCN	OS1-OCN-15	<input type="button" value="Tx"/> <input type="button" value="Rx"/>
OCN	OS1-OCN-16	<input type="button" value="Tx"/> <input type="button" value="Rx"/>
OCN	OS1-OCN-2	<input type="button" value="Tx"/> <input type="button" value="Rx"/>

SIM FLASHWAVE 1957

!

<input type="button" value="Rx"/>	OS1-OCN-1	OCN
<input type="button" value="Tx"/> <input type="button" value="Rx"/>	OS1-OCN-11	OCN
<input type="button" value="Rx"/> <input type="button" value="Tx"/>	OS1-OCN-14	OCN
<input type="button" value="Rx"/> <input type="button" value="Tx"/>	OS1-OCN-15	OCN
<input type="button" value="Rx"/> <input type="button" value="Tx"/>	OS1-OCN-16	OCN
<input type="button" value="Rx"/> <input type="button" value="Tx"/>	OS1-OCN-2	OCN



[illegible]

FIG. 8

[illegible]

FIG. 10

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NETSMART: Configuration:FLM600 OS

File Edit View NE System Operations NETSMART

Reload Previous Up Xxxxxx Print

Help

MP6A

General Information

Access Name (AID) = MP6A

Entity Type = MPSA-ADL

Properties

Alarms

FLM600-OS 1

MAINSHELF

PW6A-1

PW6A-2

AW6A

8V6A

MP6A

OSA

TCA-P

TCA-W

MC6A-3-P

MC6A-3-W

MC6A-4-P

MC6A-4-W

MC6A-5-P

Name

Value

CLEI

SNPQA7B5AA

DOM

94.03

VENDOR D

FC9616MPD1

VENDOR REY

01

primaryState

13

secondaryState

Attributes

System

Equipment

Groups/Facilities

SONET XC

EPG

FFP

Clocks

Alarms

InService

InSync

Application Ready

FIG. 11

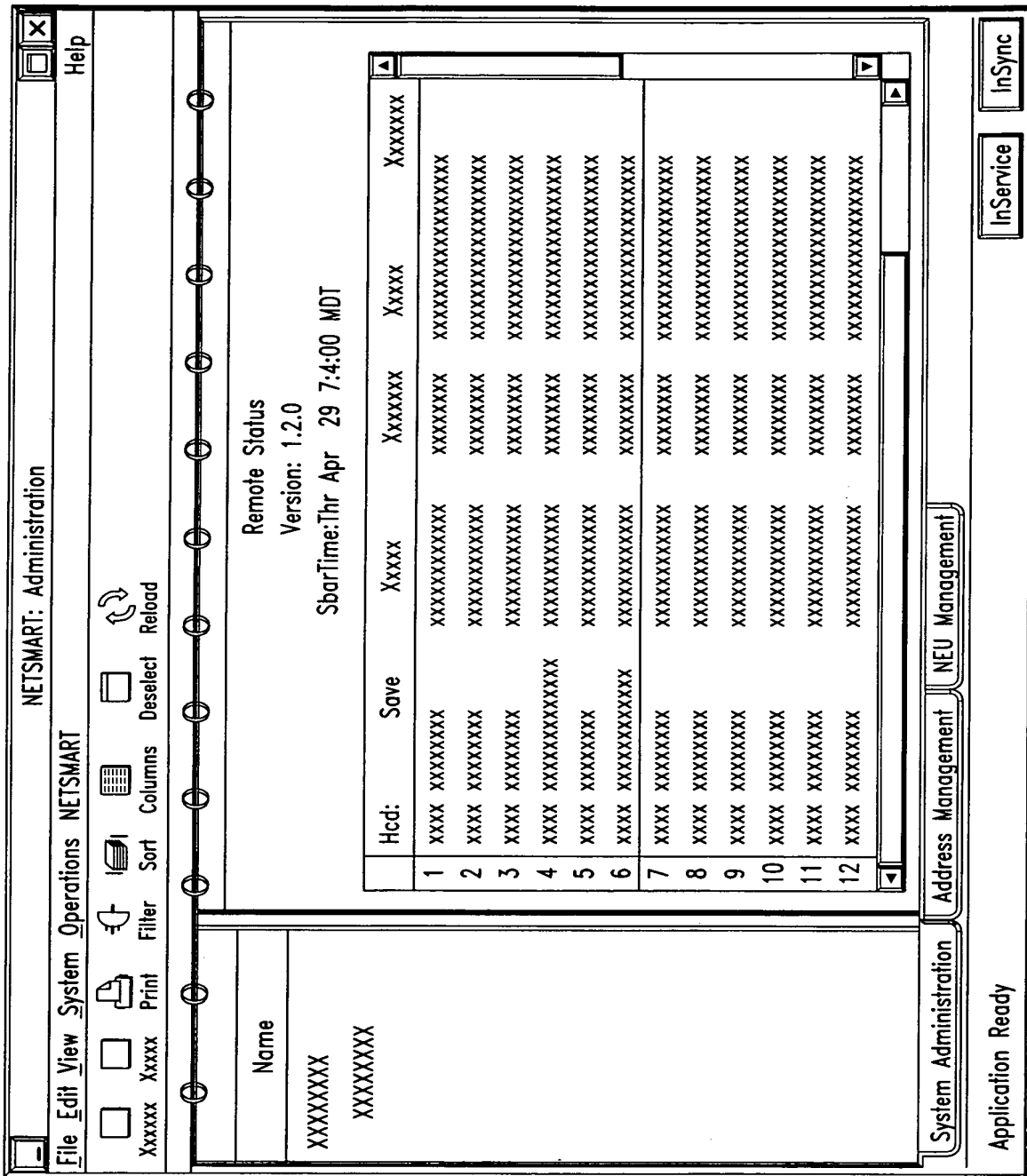


FIG. 12

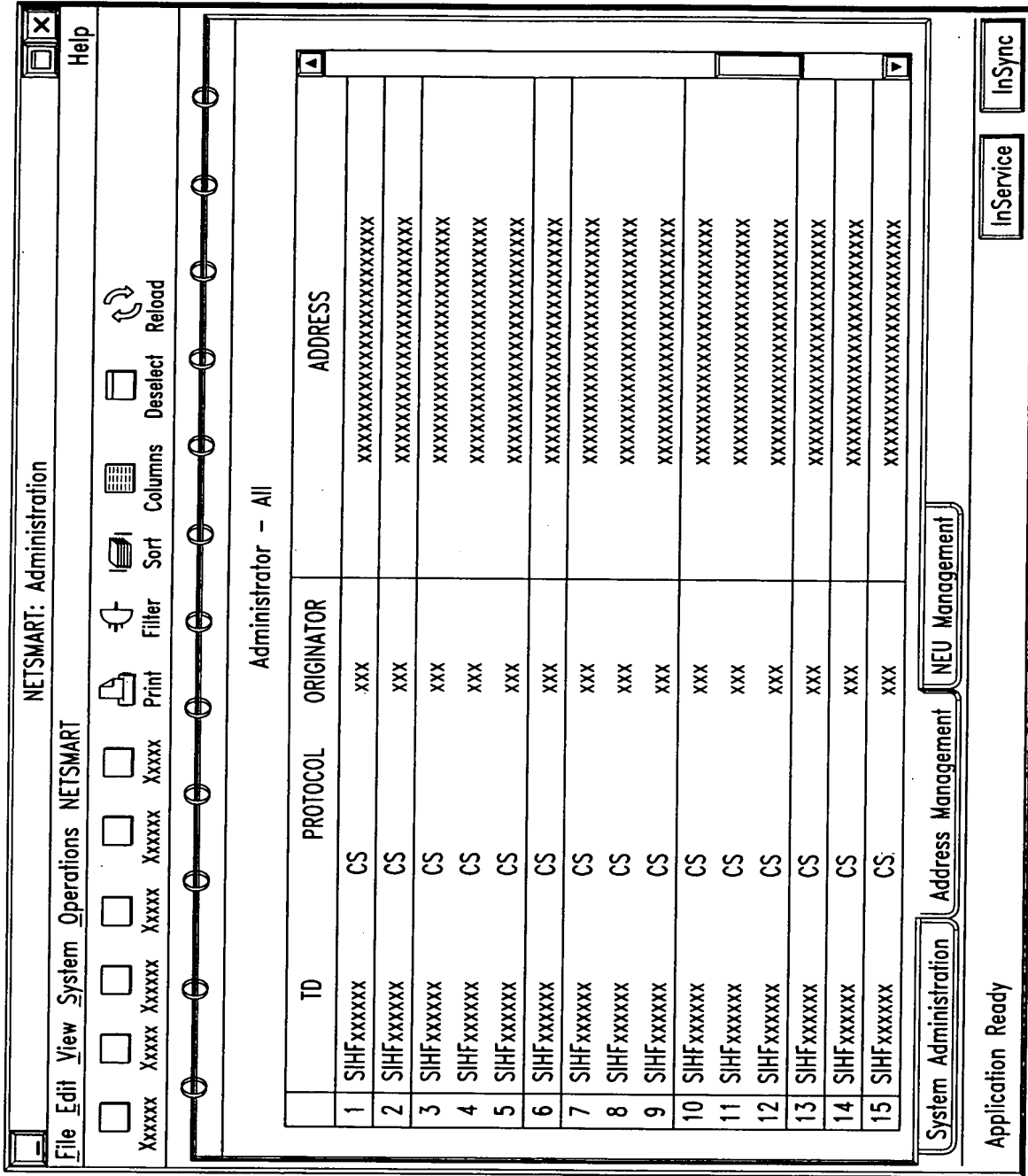


FIG. 13

FIG. 14

NETSMART: federation 1: Administration						
Xxxxxx Xxxx	Xxxxxx Xxxx	Xxxxxx Xxxx	Xxxxxx Xxxx	Xxxxxx Xxxx	Xxxxxx Xxxx	
Address List - All						
ID	TID	PROTOCOL	Originator	ADDRESS		
1	SIMFLASH61893	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
2	SIMFLASH61894	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
3	SIMFLASH61893	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
4	SIMFLASH61893	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
5	SIMFLASH61893	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
6	SIMFLASH61893	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
7	SIMFLASH1907	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
8	SIMFLASH100	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
9	SIMFLASH190	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
10	SIMFLASH61893	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
11	SIMFLASH1904	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
12	SIMFLASH1903	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
13	SIMFLASH100	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
14	SIMFLASH190	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		
15	SIMFLASH001724	OSI	TARP	XXXXXXXXXXXXXXXXXXXXXXX		

Application Ready

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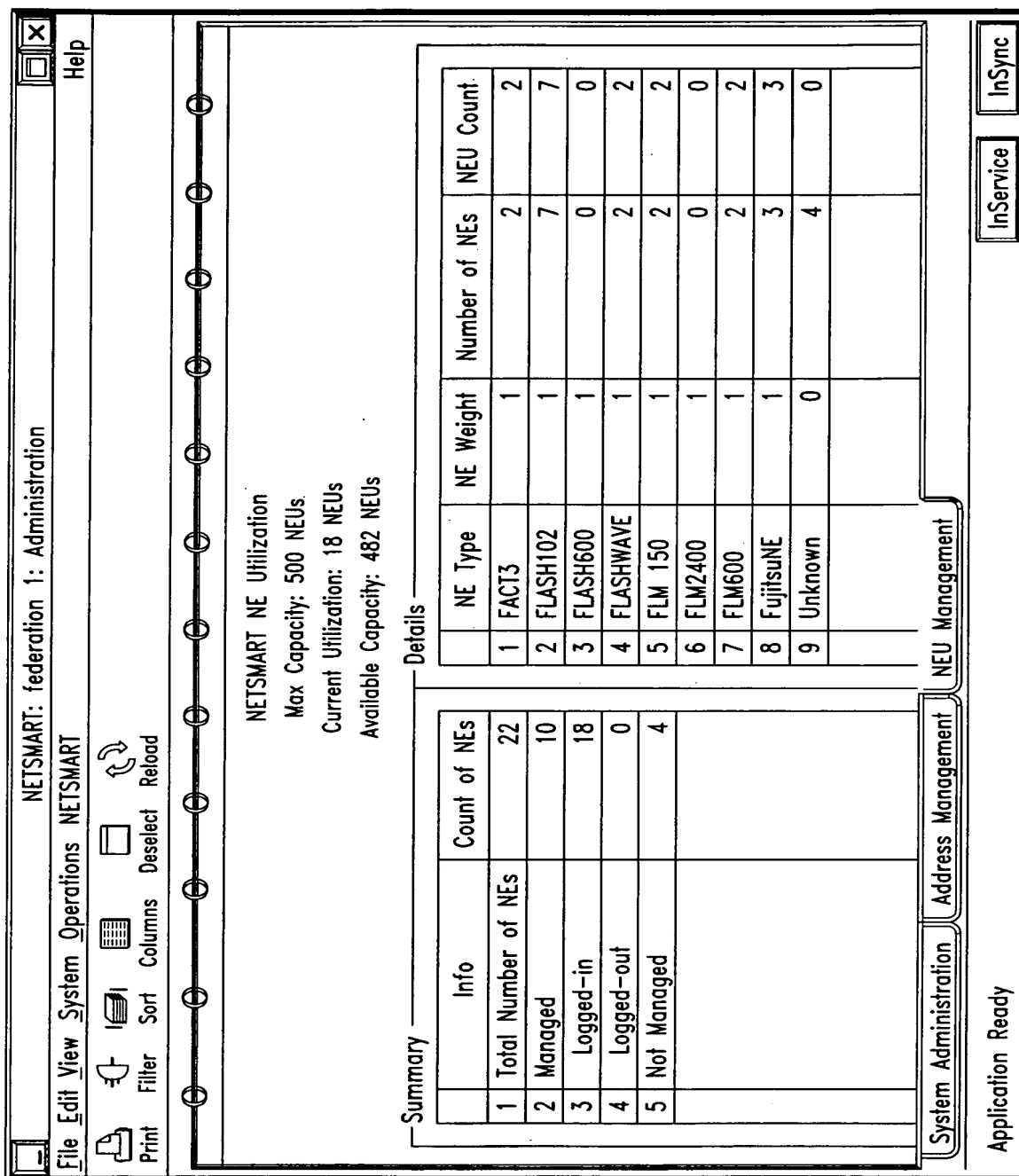


FIG. 15

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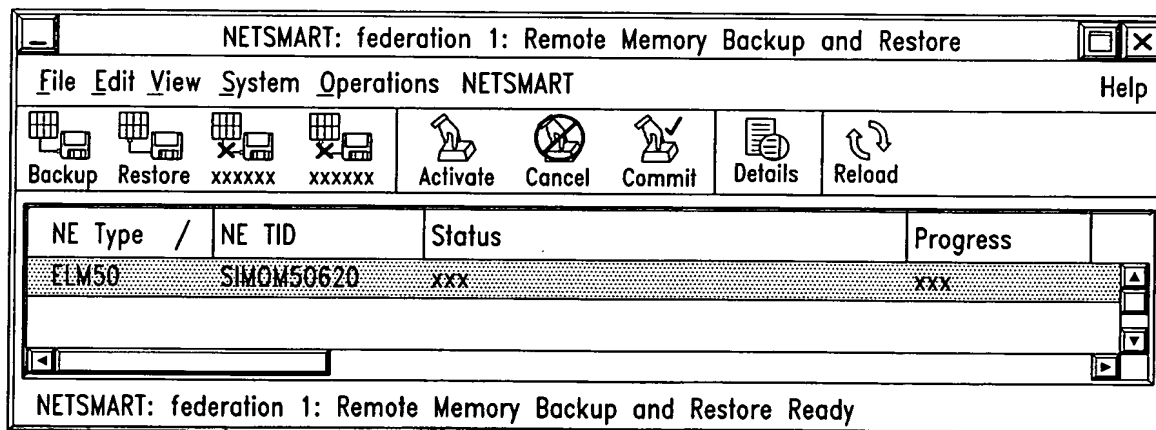
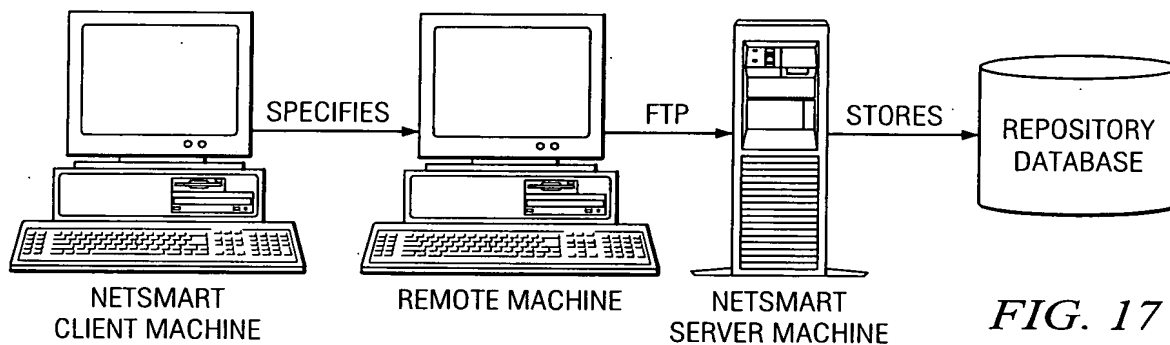
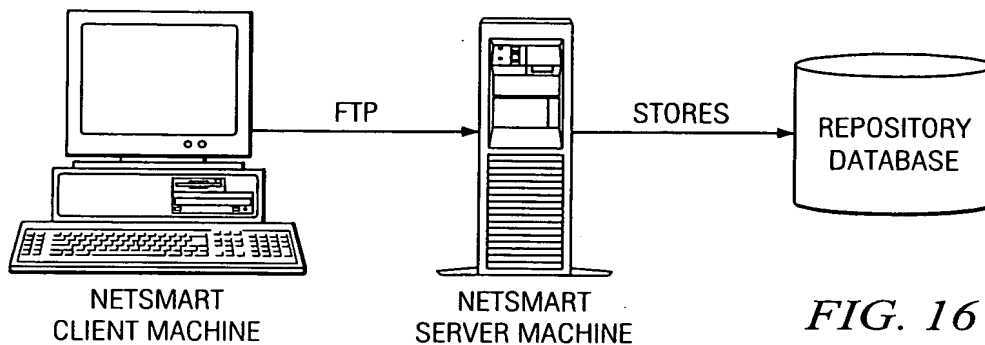


FIG. 18

[illegible]

NETSMART: federation 1: Configuration

File Edit View System Operations NETSMART

Reload xxxx UM PE Remove Delete Xxxxxx Xxxxxx

Xxxxxx

Xxxxxx

Xxxxxx

Xxxxxx

+1 +2

System Equipment Groups/Facilities Interface Type Sonet XC Fast Lane XC DS0 XC EGP FFP Alarms Clocks

InService InSync

Application Ready

FIG. 20

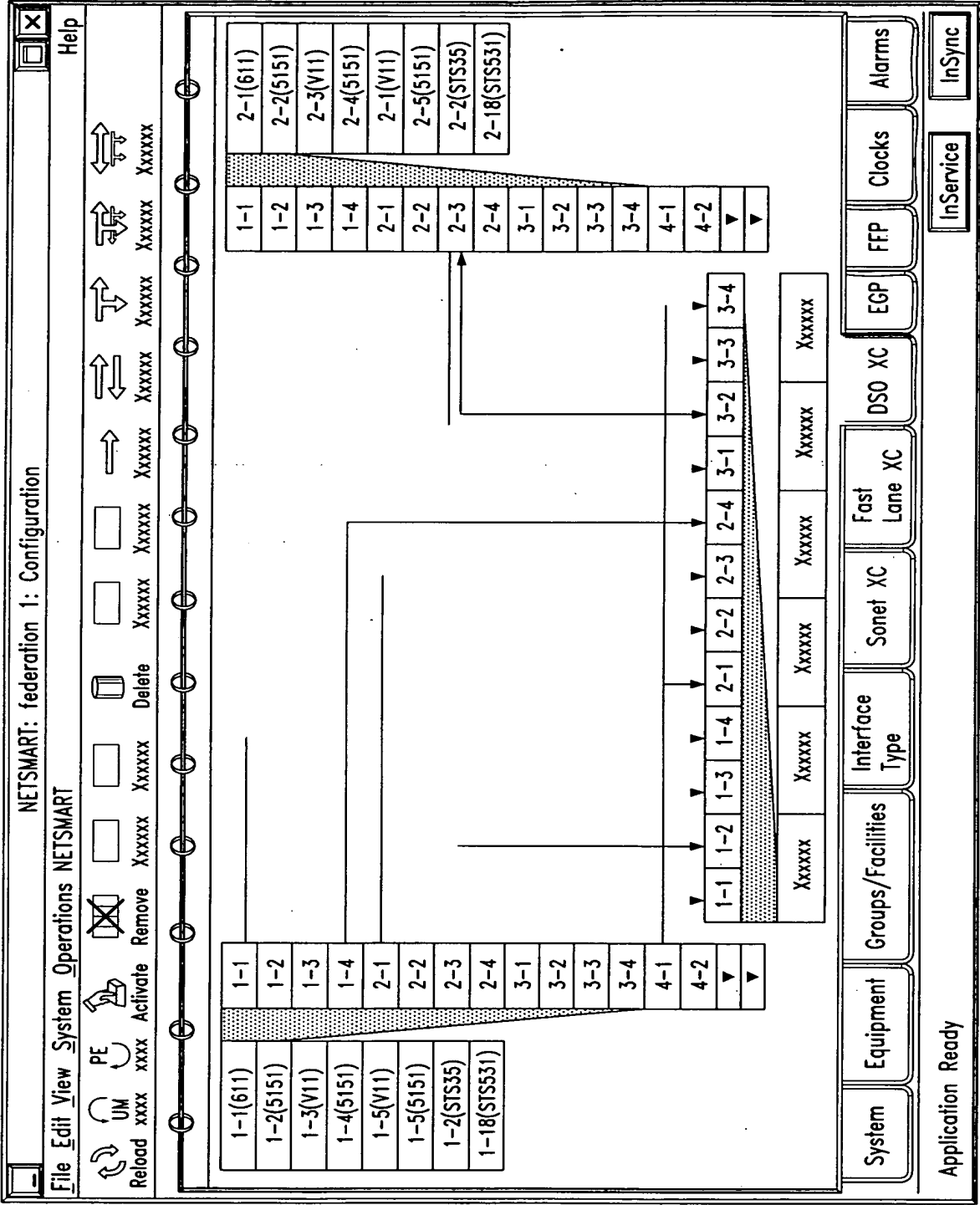


FIG. 21

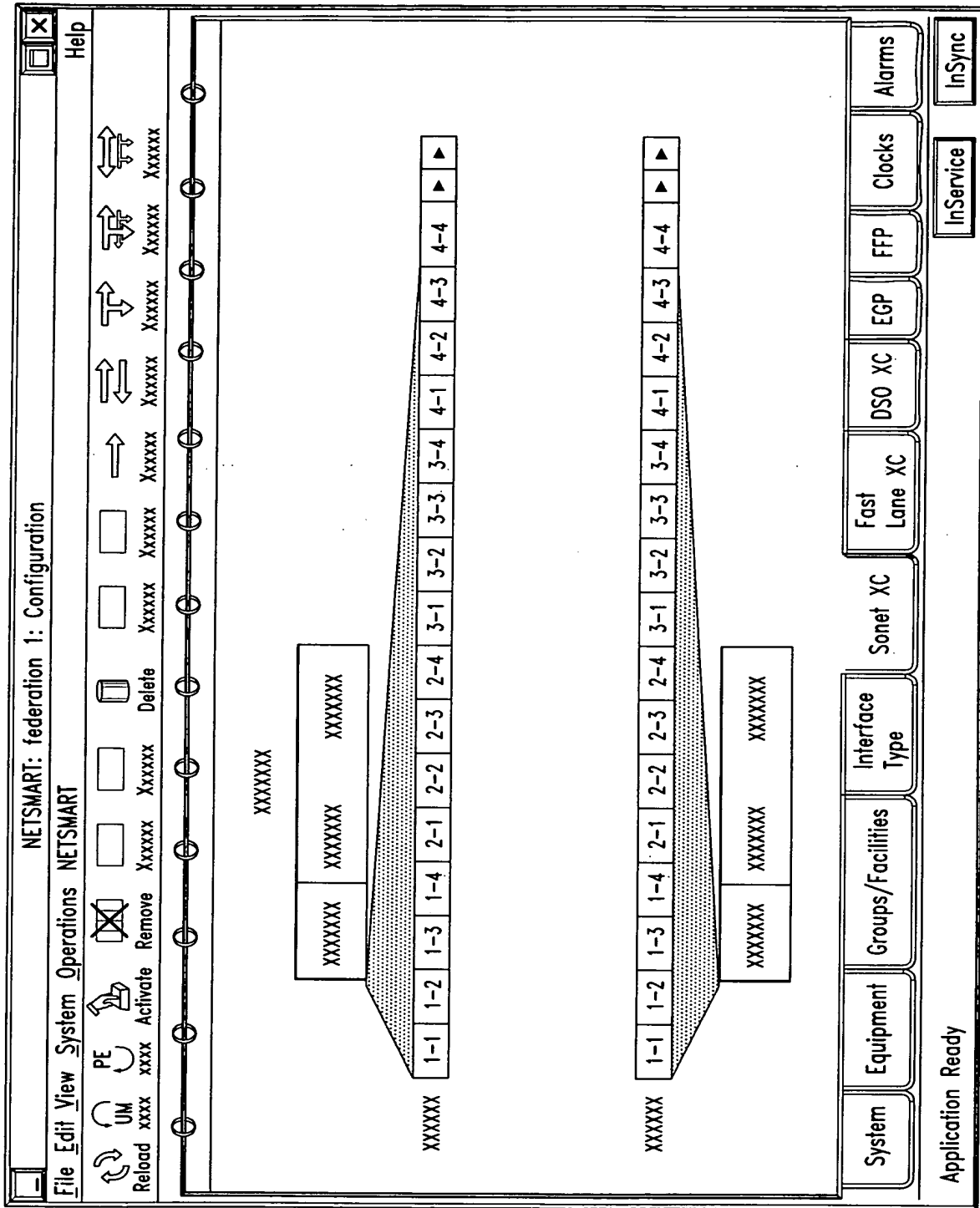
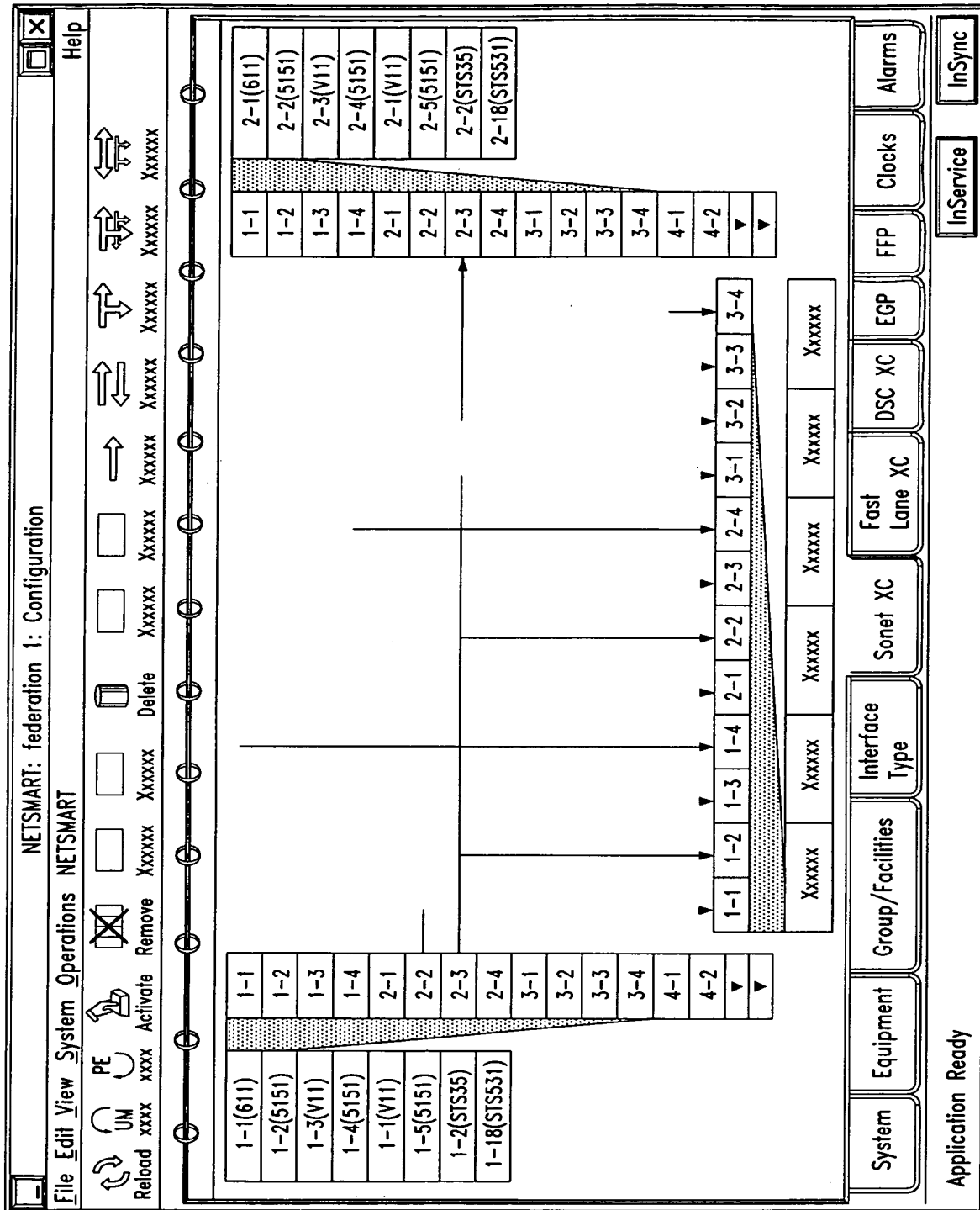








FIG. 22



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FIG. 24

Crossconnect Report							
							
Print	Filter	Sort	Columns	Deselect	Reload		
	From	To	Rate	Redline	Bridge	Crossconnect Name	Crossconnect Type
1	2-3-2-4	1-3-2-4	VT1	No			1 WAY
2	1-3-1-1	2-3-1-1	VT1	No			1 WAY
3	1-3-1-3	2-3-1-3	VT1	No			1 WAY
4	1-0-2-4	2-0-2-4	VT1	No			1 WAY
5	2-3-1-1	1-3-1-1	VT1	No			1 WAY
6	2-3-1-3	1-3-1-3	VT1	No			1 WAY
7	1-2	2-2	STS1	No			1 WAY
8	2-2	1-2	STS1	No			1 WAY
Close				Help			

[illegible]

Managing Facilities

Close

Xxxxx

Delete

Reload

Rate:

OCN

Shelf:

OS1

Existing Facilities

OS1-OCN-1

OS1-OCN-2

OS1-OCN-3

OS1-OCN-5

OS1-OCN-6

OS1-OCN-8

OS1-OCN-9

OS1-OCN-11

OS1-OCN-14

OS1-OCN-15

OS1-OCN-16

Non-existing Facilities

OS1-OCN-4

OS1-OCN-7

OS1-OCN-10

OS1-OCN-12

OS1-OCN-13

OS1-OCN-17

OS1-OCN-18

OS1-OCN-19

OS1-OCN-20

OS1-OCN-21

OS1-OCN-22

Access Name (AID) - OS1-OCN-1

Entity Type - OCN

Name

Value

OPTADJ

+0.0

RATE

10G

primaryState

IS-NR

secondaryState

Attributes

FIG. 26

NETSMART: Configuration:FACTOR B

File Edit View Go Operations NETSMART Help

Reload Previous Up Deselect Print

MP6A

☒ General Information ☐ Properties ☐ Alarms

Access Name (AID) = 1
Entity Type = T1

Name	Value
XXXXXXX	XXXXXXXXXX

Attributes

System Equipment Groups/Facilities SONET XC EPG FFP Clocks Alarms

Attributes Ready

InService InSync

FIG. 27

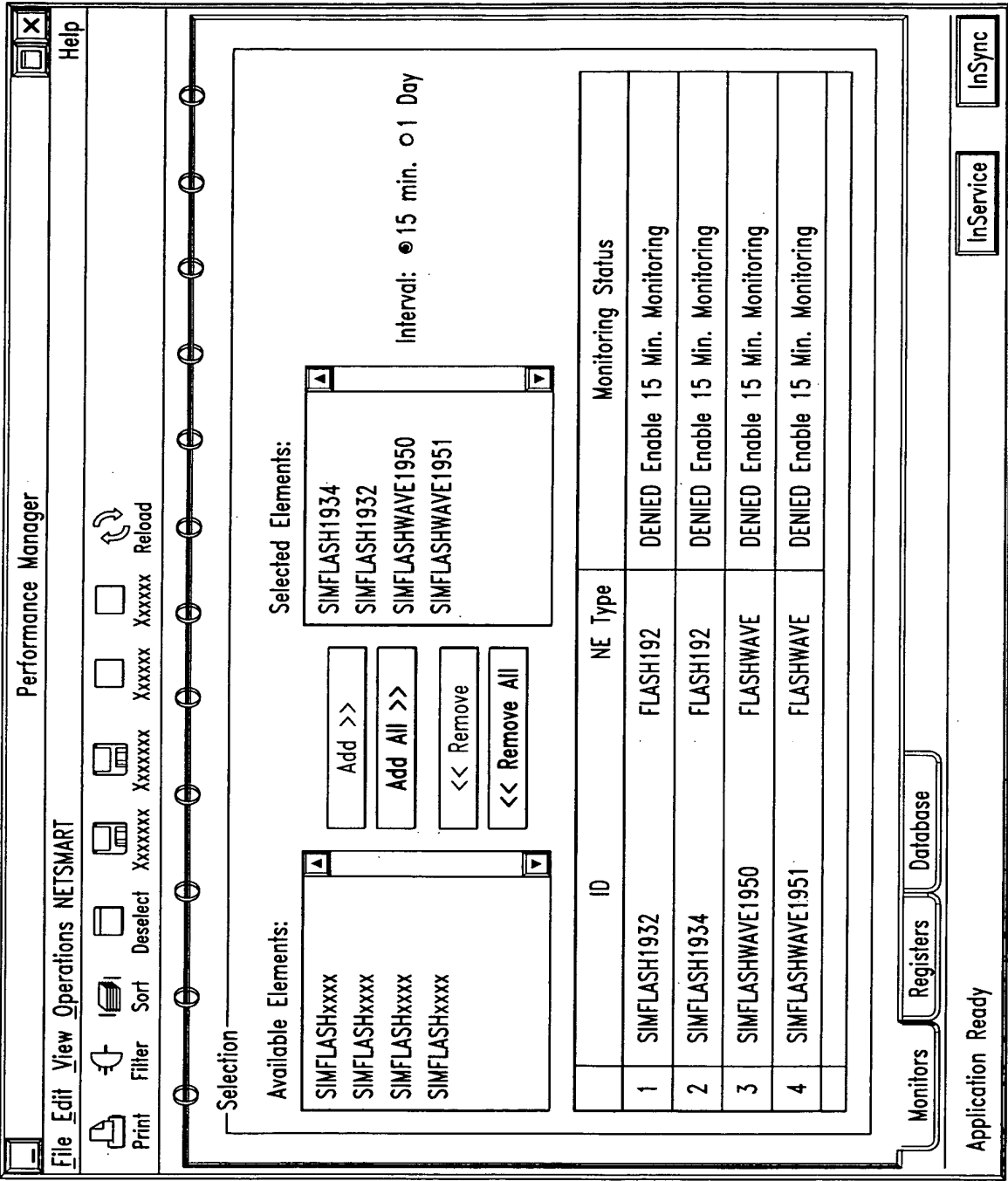


FIG. 28

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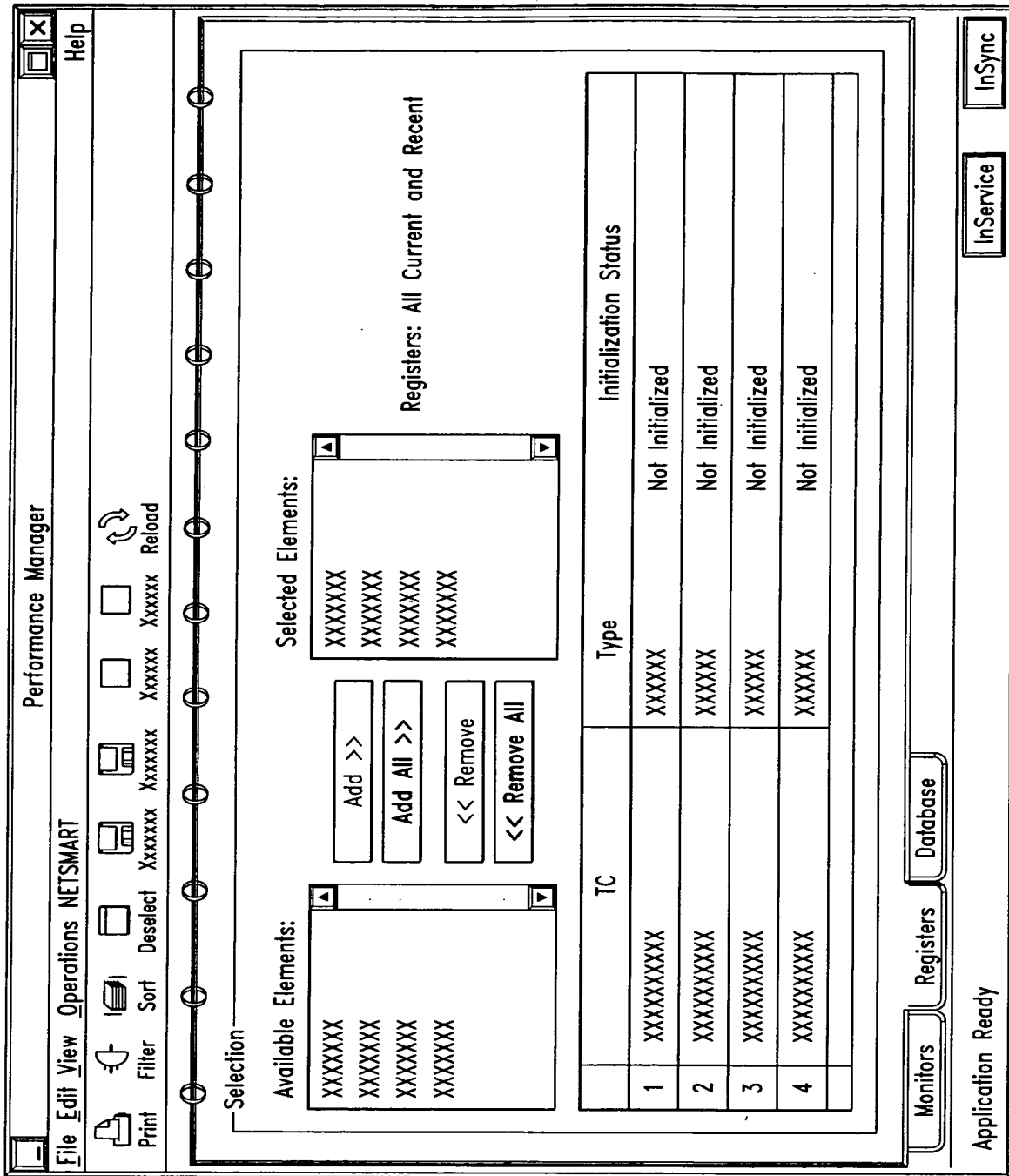


FIG. 29

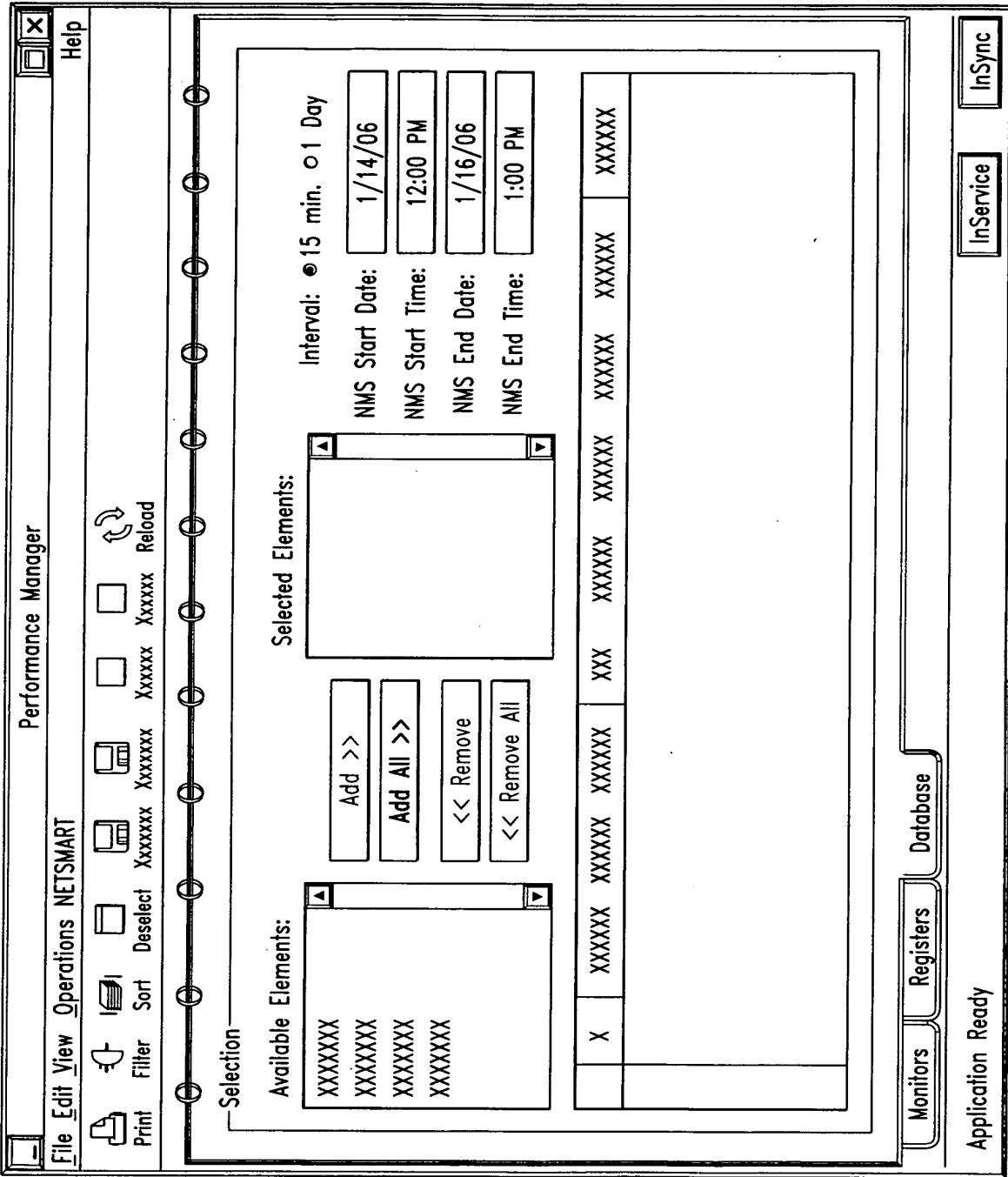


FIG. 30

Close Print Filter Sort Deselect XXXXXX XXXXXX XXXXXX XXXXXX Reload

HS1-HT2H-2

Selection

Available Equipment:

Add >>

Add All >>

<< Remove

<< Remove All

Selected Equipment:

XXXXXXXXXXXX

	NvS Time	NE Time	A D TYPE	AID	Register	Value	Range	Threshold
1	Fri Feb 11 2000 14:58:35 EST	Fri Feb 11 2000 14:58:35 PST	FQFT	HS1+72H-2	IRCH	1.0	1.2-1.8	1.3
2	Fri Feb 11 2000 14:58:35 EST	Fri Feb 11 2000 14:58:35 PST	FQFT	HS1+72H-2	IPIN	1.0	0.2-0.8	0.3

Monitors

Registers

Databases

InService

InSync

Application Ready

FIG. 31

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Close
Print
Filler
Sort
Deselect
Xxxxxx
Xxxxxx
Xxxxxx
Reload

HS1 2(OC192)

HS1-HT2H-2

Selection

Available Facilities:

Add >>

Add All >>

<< Remove

<< Remove All

Selected Facilities:

XXXXXXXXXXXX

Location ☒ NEND ☐ FEND ☐ NEND&FEND

Direction ☒ Receive ☐ N/A

Interval: ☒ 15 min. ☐ 1 Day

Start Index:

Final Index:

NMS Time	NE Time	AID TYPE	AID Register	Value	Range	Threshold	Default	Validity	Location	Direction

Monitors

Registers

Databases

Application Ready







InService

InSync

FIG. 32

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FIG. 33

Crossconnect Report							
							
Print	Filter	Sort	Columns	Deselect	Reload		
	From	To	Rate	Redline	Bridge	Crossconnect Name	Crossconnect Type
1	2-3-2-4	1-3-2-4	VT1	No			1 WAY
2	1-3-1-1	2-3-1-1	VT1	No			1 WAY
3	1-3-1-3	2-3-1-3	VT1	No			1 WAY
4	1-3-2-4	2-3-2-4	VT1	No			1 WAY
5	2-3-1-1	1-3-1-1	VT1	No			1 WAY
6	2-3-1-3	1-3-1-3	VT1	No			1 WAY
7	1-2	2-2	STS1	No			1 WAY
8	2-2	1-2	STS1	No			1 WAY
Close				Help			

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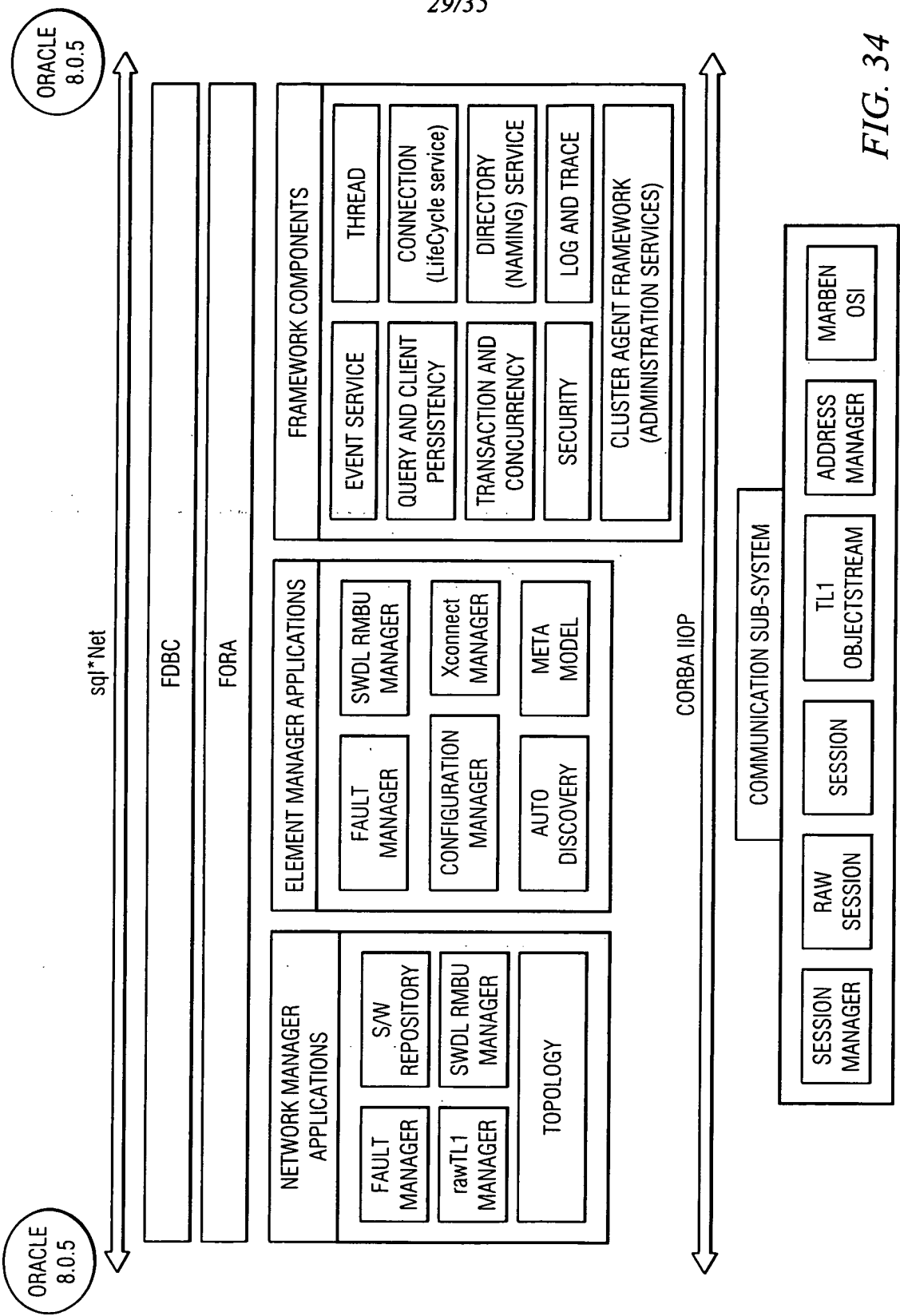


FIG. 34

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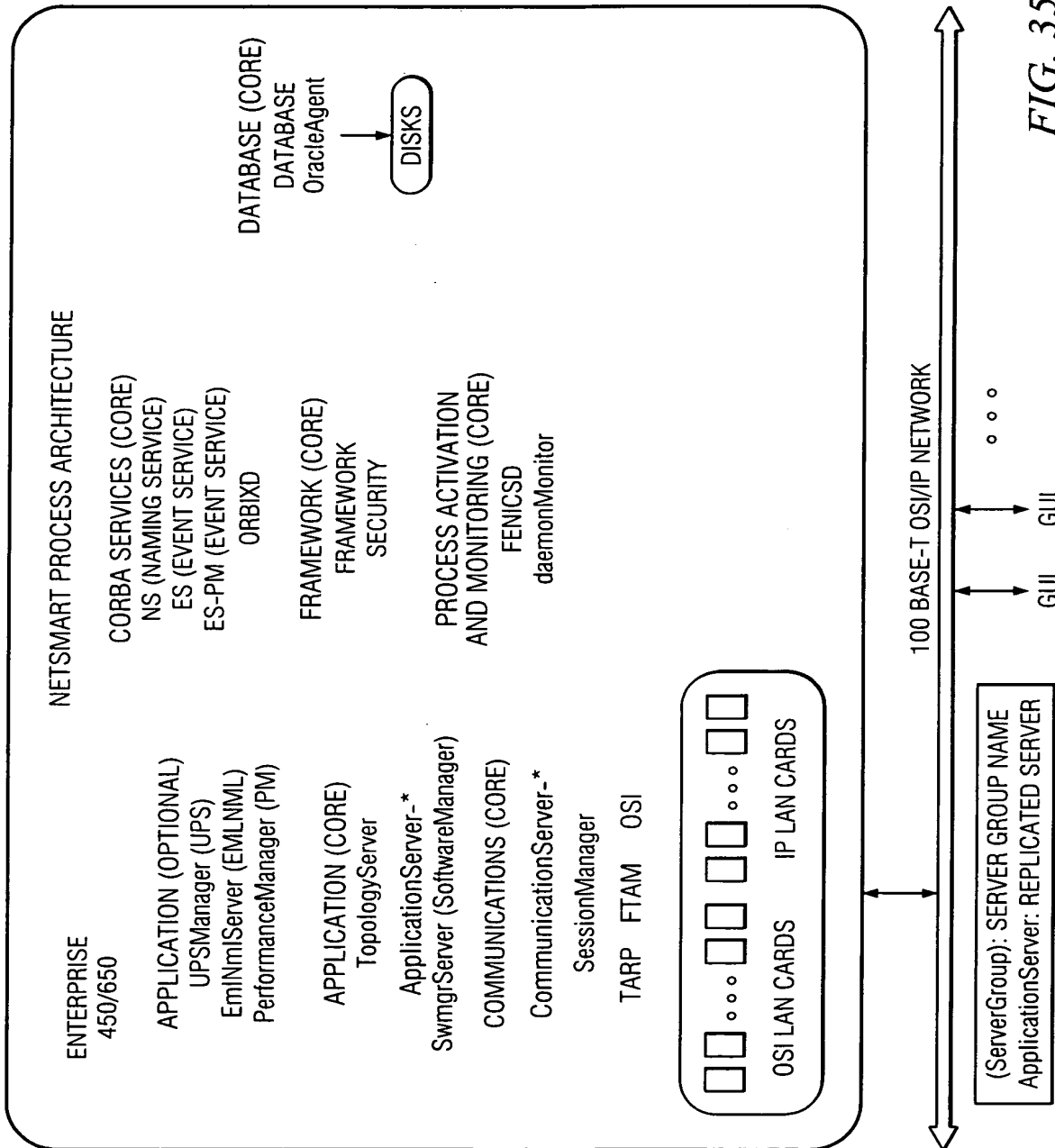


FIG. 35

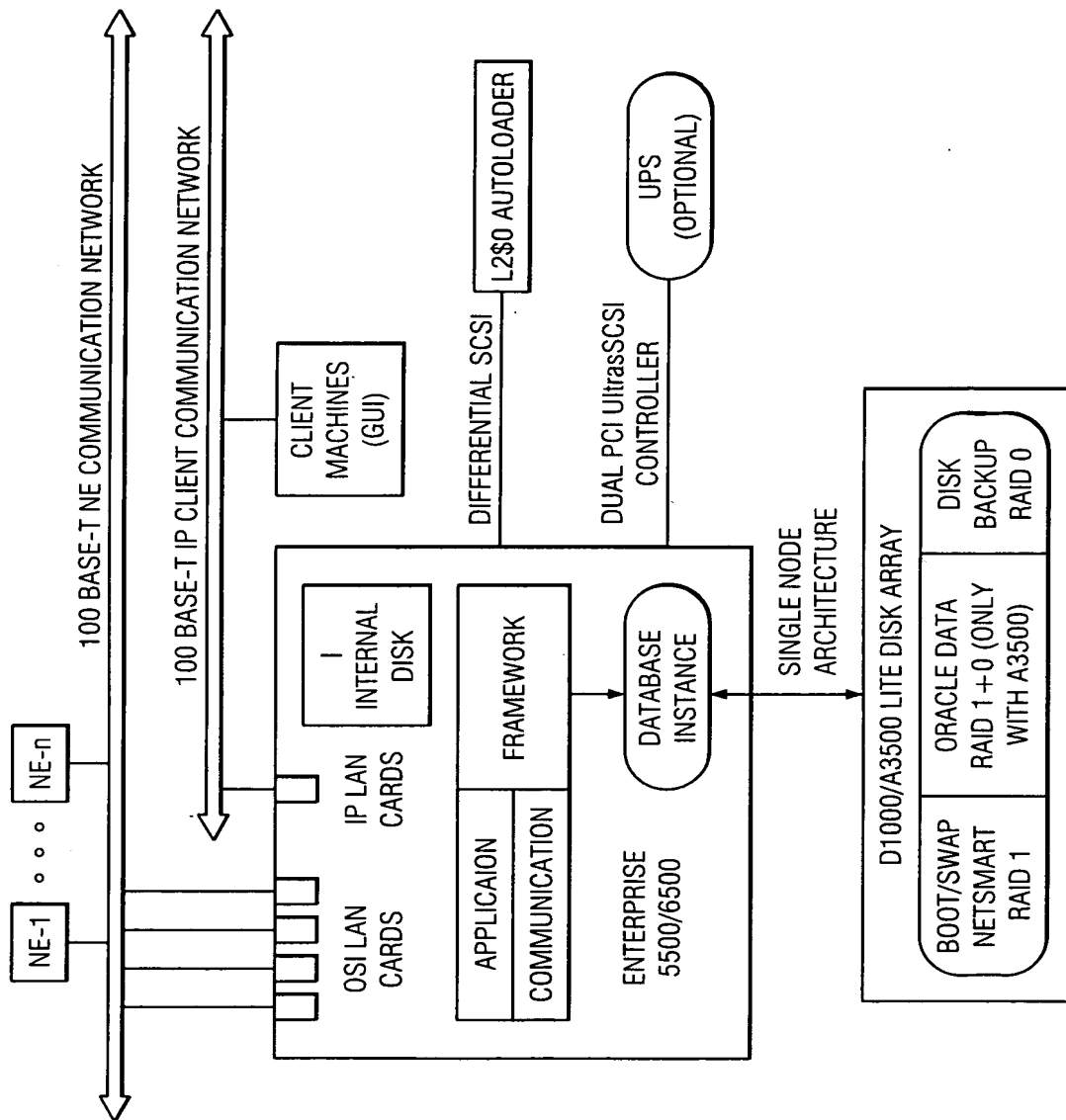
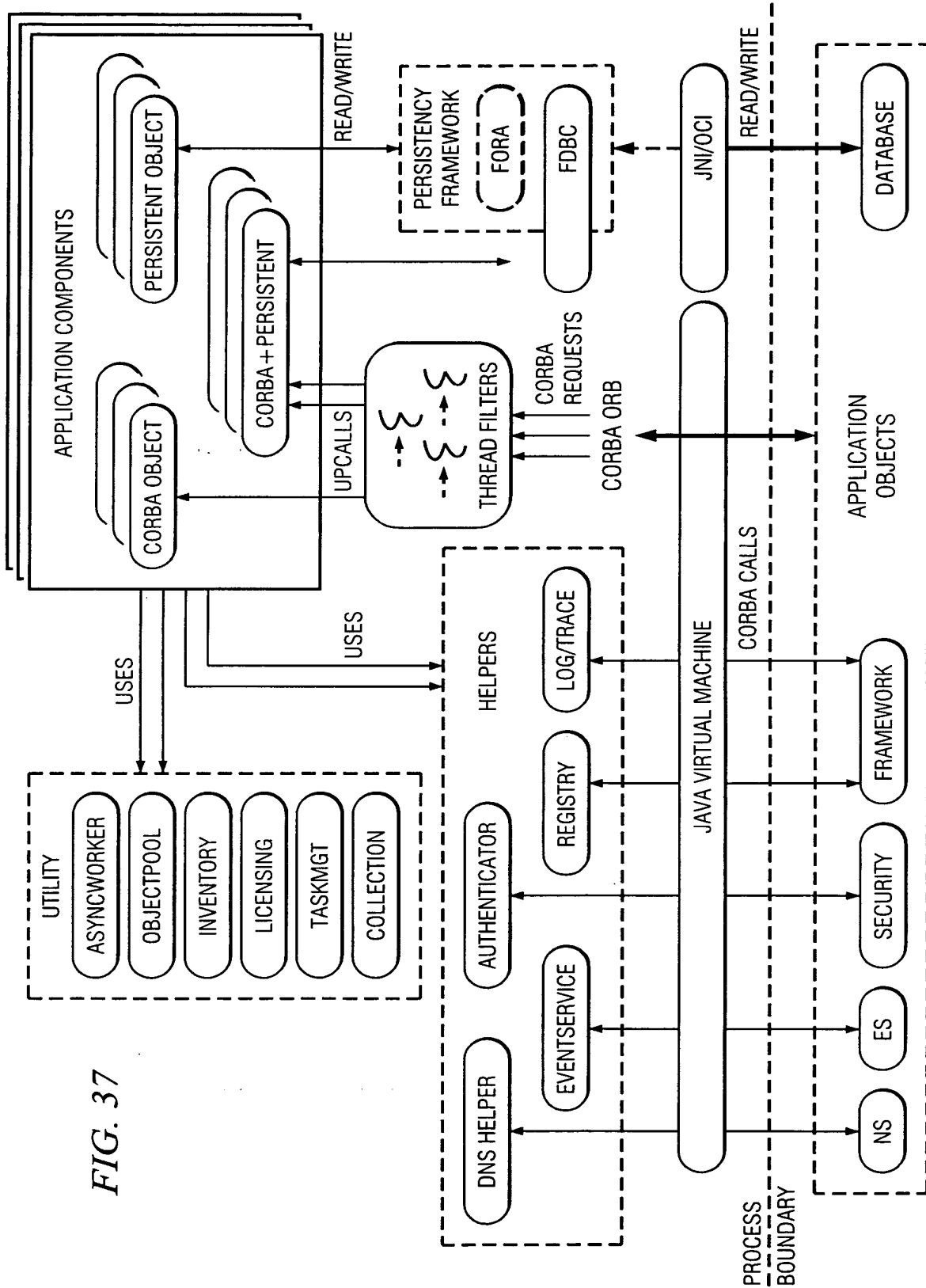


FIG. 36

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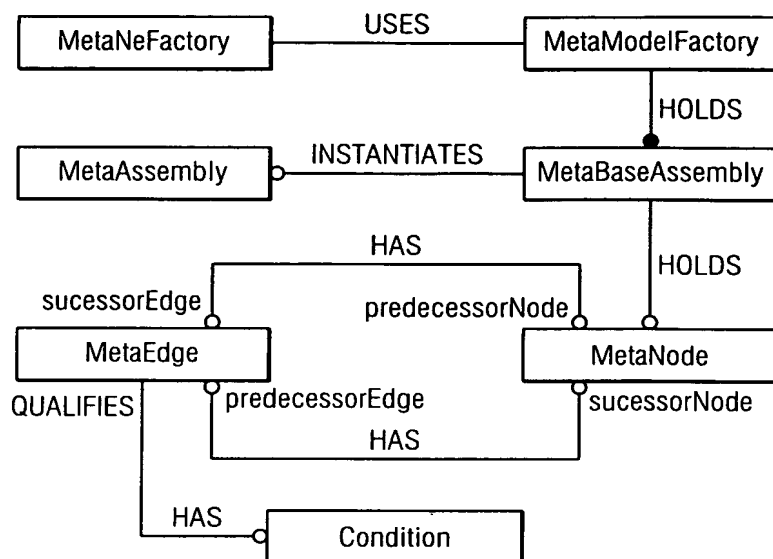


FIG. 38

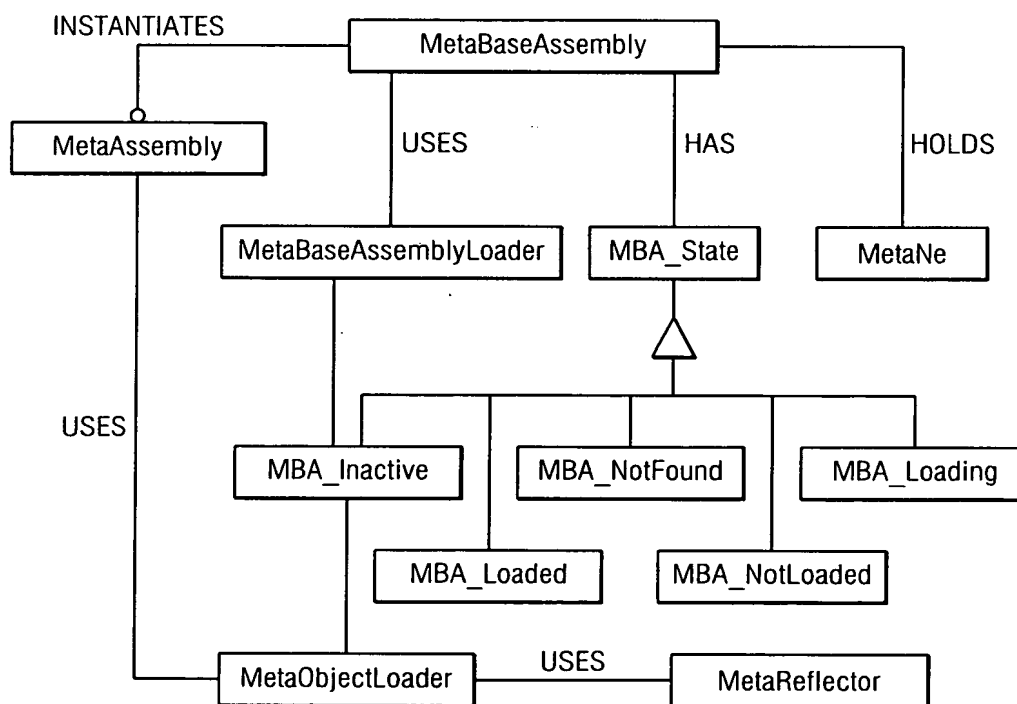


FIG. 39

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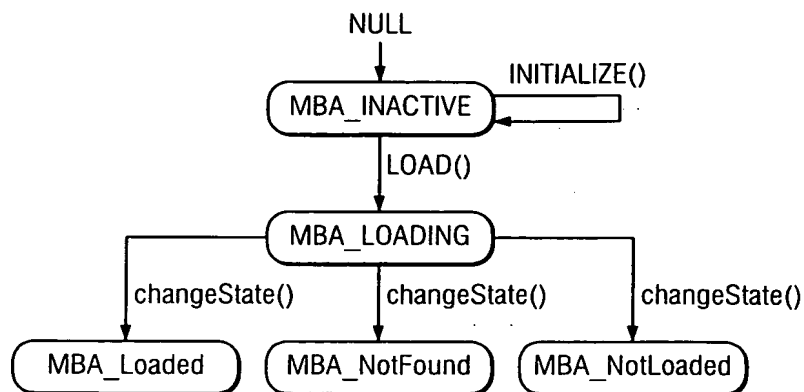


FIG. 40

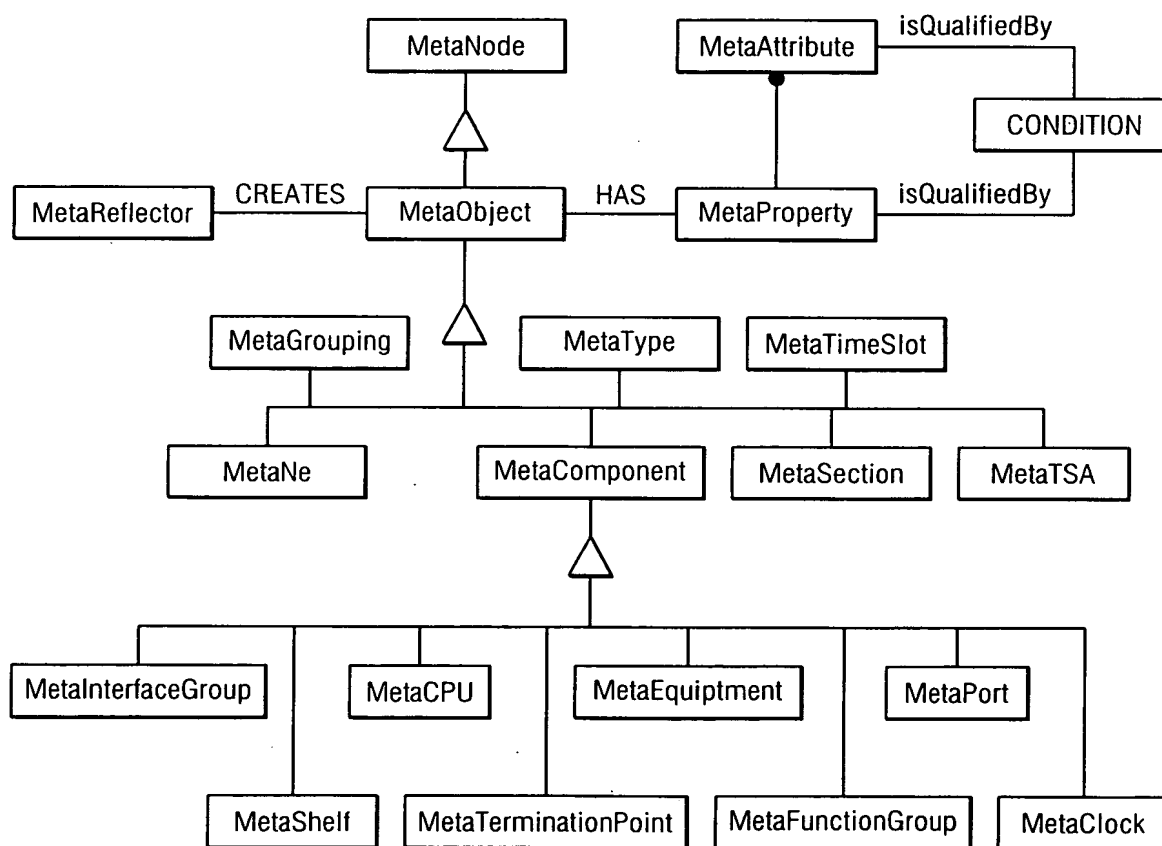


FIG. 41

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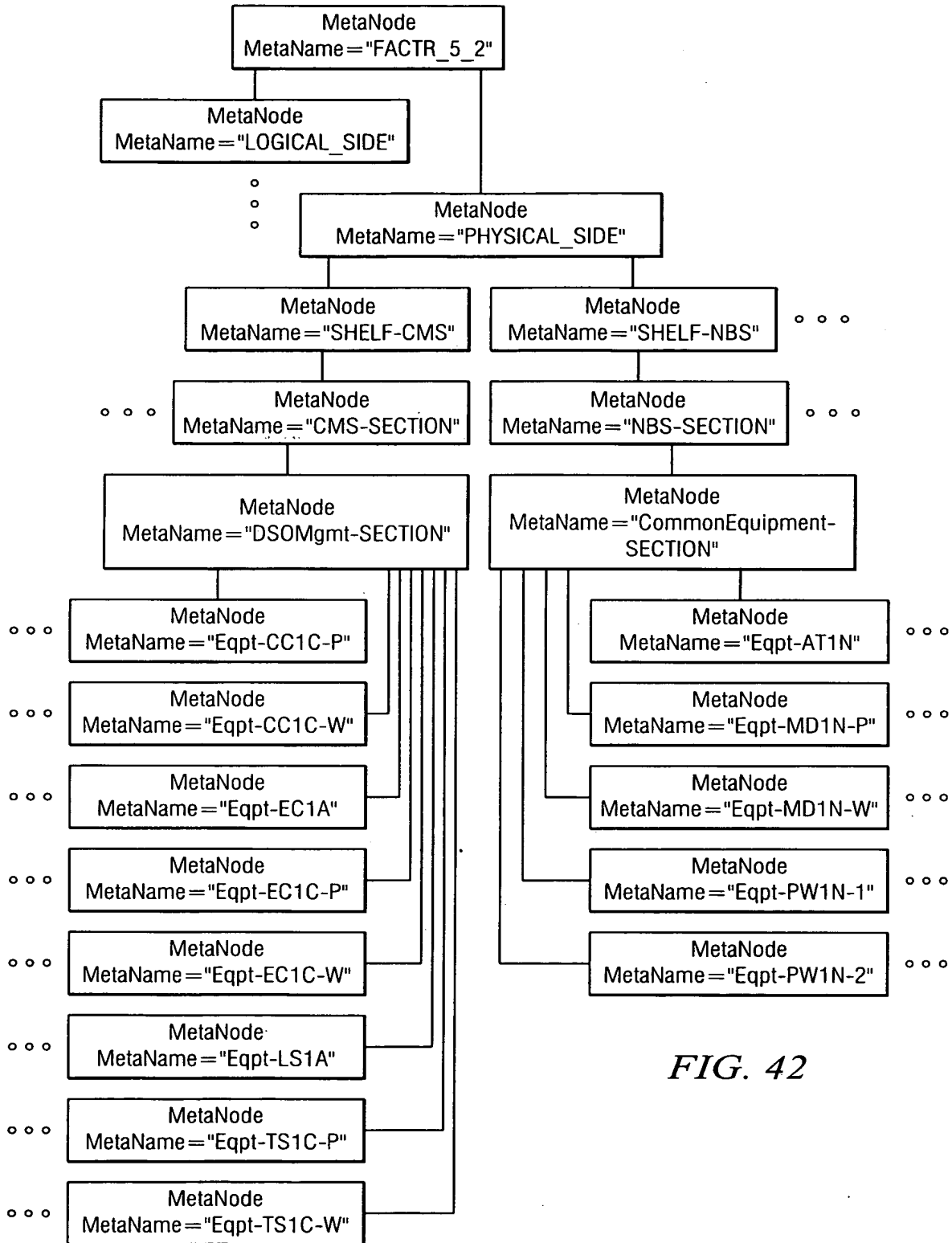


FIG. 42